Deutsche Bank Risk





Glossary of terms used in Investor Day presentation by Stuart Lewis, Chief Risk Officer

12 September 2012

Note: This Glossary explains several terms used in the Risk Investor Day presentation 2012 to ease understanding of the presentation. It is not a comprehensive explanatory document to be used by shareholders or investors to take investment decisions. For this purpose we refer to Deutsche Bank's Annual and Quarterly reports, in terms of risk management especially the Risk Report as part of the Annual Report and Item 11 of the 20-F document, both available at our website www.deutschebank.com/ir.



Value at Risk (VaR) (pg. 2) is an estimate of the potential loss that the Bank could suffer from its Trading Market Risk positions over a specified period of time under "normal" market conditions. It is not the "maximum" loss we can suffer on a single trading day: At Deutsche Bank, it is usually calculated based on a 99% confidence level over a single trading day – i.e. in general, this loss level is expected to be exceeded once every 100 trading days.

Under the Basel 2.5 framework, banks using internal models are required to calculate an additional capital charge based on a *Stressed VaR (SVaR) (pg. 2)*, which is added to the already existing VaR-based charge. The intention of the Stressed VaR requirement is to deliver the charge that the bank's current VaR model would generate if the bank experienced a continuous one-year period of significant financial stress relevant to its portfolio. Hence, the Stressed VaR charge will normally be measurably higher than the VaR charge reflecting the prevailing market conditions.

Loan Loss Allowances (LLA) (pg. 16) are on-balance sheet reserves established against those loans which are viewed as impaired because full repayment is viewed as unlikely. During any period, our Provision for Loan Losses (or commonly Loan Loss Provision (LLP) (pg. 17)) represents the total net charge to P&L. This figure is netting out releases from previously established provisions against new provisions. If off-balance sheet provisions (e.g. provisions for guarantees) are added to LLPs, this is termed Credit Loss Provisions (CLP) (pg. 3).

The term (Advanced) Internal Ratings-Based Approach (IRBA) (pg. 4) refers to a set of credit risk measurement techniques under Basel II. Under this approach banks are allowed to develop their own empirical model to quantify required RWA for credit risk, subject to approval from their local regulators. German regulations require that a minimum percentage of assets is covered by these IRBA models (at the end of 2012, the minimum coverage ratio for DB is 92%). The percentage is calculated both in terms of RWA and *Exposure at Default (EAD) (pg. 4*), with EAD being the estimated amount of credit exposure to a counterparty which might be outstanding at the time of default.

Economic Capital (EC) (pg. 7) is the amount we estimate we should hold to protect the Bank against major unexpected losses. It is calculated for Credit Risk, Market Risk (incl. Trading and Non-Trading as well as Traded Default Risk), Operational Risk and Business Risk (incl. Strategic and Tax Risk), deducting cross-risk type diversification benefits. The calculation at Deutsche Bank is based on a one-year holding period and a 99.98% confidence level.

Tail Risk (pg. 7) is an expression for the magnitude of a risk that manifests itself in very rare circumstances (the tail end of a probability distribution).

To measure the sensitivity of the value of a derivative product with respect to an input factor (such as the current price of the underlying asset or its volatility), a derivative of the valuation model is made with regards to this input factor. The first derivatives, such as Delta (price) or Vega (volatility) are called *First Order Risks (pg. 8)*.

Trading (Market Risk) Economic Capital (pg. 8) is an estimate of the amount of capital we consider to be required to absorb and survive an extreme loss in our trading activities within Market Risk. EC calculation does not assume "normal" markets but many stress events happening, together causing severe losses.

VaR Efficiency (pg. 9) is a measure of the relative ability of a trading activity to generate income from open positions. We calculate VaR efficiency as being the average profit generated on 1 trading day, as a percentage of the average VaR utilised.

Credit Trading (pg. 10) comprises our internal business units that trade cash or derivative credit assets with clients including specifically structured transactions. One type of structure focuses on asset correlations and their development. This *Correlation (Trading) (pg. 14)* usually requires substantial underlying notional volumes to be profitable, however, it is deemed to be part of DB's non-core operations going forward. For our *Inventory (pg. 10)* of (credit) assets held to facilitate client trading or structuring we face the risk of a change in the values of these assets or that the referenced counterparties default.

Basis Risk (pg. 10) is the risk that two or more assets that are expected to move in a similar manner (either in the same direction or in opposite directions) do not behave as expected. Examples are

• CDS / Bond Basis Risk (pg. 10), where the Credit Default Swap (pg. 10) (a derivative that tracks the credit risk of a counterparty) may not move similar to a bond issued by the same counterparty and/or moves only with a time delay.



• Index / Single Name Basis Risk (pg. 10), where an index may not move similar to a single name (which may be part of that index or in the same industry/country, etc.).

Credit Ratings signify the probability that a counterparty defaults over a period of time (generally one year). Deutsche Bank uses a 26-grade rating scale comparable (but not completely equal) to the one used by major credit rating agencies, ranging from iAAA to iD. Ratings from iAAA to iBBB- are classified as *Investment Grade (IG) (pg. 11)*, whilst those of iBB+ and below are termed *Non-Investment Grade (Non-IG) (pg. 15)*.

Besides the accounting rules, risk management at Deutsche Bank also analyses the economic character of assets and mitigating factors such as netting agreements, collateral or hedging to adequately manage the associated risks. In some instances this may lead to different figures compared to IFRS when describing a certain risk. At Deutsche Bank, this is generally signified by using the term *Risk Management View (pg. 13)*.

(GIIPS (Greece, Italy, Ireland, Portugal, Spain)) Funding Gap (pg. 13): Deutsche Bank works actively to reduce the intra-group funding dependency of our entities in southern Europe – namely in Italy, Spain and Portugal – e.g. via increasing local funding through retail deposit campaigns and local bond issuances.

Settlement Risk arises from the non-simultaneous movement of cash and/or securities due to the settlement or clearance of trades. The term *Safe Settlement (pg. 13)* is used if Deutsche Bank receives payment or delivery from a counterparty before making delivery or payment, or the transfer is effected in a matched "Delivery Versus Payment" environment such as clearing houses. Typically this provides for simultaneous settlement between Deutsche Bank and the counterparty.

Monolines (pg. 15) are a class of insurer that amongst others provides direct credit insurance on various types of bonds, most commonly public finance issues.

Securitization (pg. 5) is the process by which an individual loan, or portfolio of loans or other cash-flow generating assets, is placed into a bankruptcy remote Special Purpose Vehicle ("SPV") which then funds itself via the issuance of notes, which are secured on those assets and the payment of which is almost exclusively linked to their performance. *Non-Agency Securitizations (pg. 10)* are securitizations issued by private, i.e. non-governmental issuers.

The securities are usually termed *Asset Backed Securities (ABS) (pg. 17)* and are commonly "tranched" into several classes of notes. ABS have many possible types of underlying collateral. Common ones are:

- Residential Mortgage Backed Securities (RMBS) (pg. 15): Assets are mainly residential mortgages. Besides "prime" (i.e. first class) underlying mortgages also two broader categories of non-conforming RMBS exist:
 - Sub-Prime RMBS (pg. 15): Borrowers are seen as having higher risk (typically could not qualify for a more favorable rate, having low credit scores and histories of payment delinquencies, charge-offs, or bankruptcies).
 - Alt-A RMBS (pg. 15): More risky than "prime" and less risky than "sub-prime"; Alt-A borrowers would have had a sufficient credit rating to qualify for a "conforming / prime" mortgage, if not for an ancillary characteristic of their mortgage application, e.g. low income documentation, high loan-to-value, etc.
- Commercial Mortgage Backed Securities (CMBS) (pg. 15): Assets are mainly commercial mortgages.
- Collateralized Debt Obligations (CDO) (pg. 15): Can generally consist of any Fixed Income assets. They can be categorised in several ways, e.g. by motivation (profit making vs. balance sheet management) or type of assets (cash vs. synthetic).
- Collateralized Loan Obligations (CLO) (pg. 15): A sub-category of CDO, backed primarily by leveraged loans.

A *Trust-Preferred security (TruPs) (pg. 15)* is a hybrid security possessing characteristics of both subordinated debt and preferred stock generally issued by bank holding companies.

Credit Valuation Adjustment (CVA) (pg. 15) is one of several fair value adjustments required by IFRS. CVA accounts for expected loss due to counterparty default, to the extent this is not yet reflected in pricing.



IAS 39 (pg. 16): Financial instruments are classified at initial recognition into one of the following accounting classifications i) Fair Value through Profit or Loss, ii) Assets Available for Sale, iii) Loans and Receivables and iv) Other financial liabilities. Originally, no reclassifications from the initial classifications were permissible. From October 2008, an amendment to IAS 39 has permitted reclassifications of non-derivative financial assets under certain circumstances.

During 2H2008 and 1Q2009 Deutsche Bank reclassified certain eligible trading assets and financial assets available for sale to loans and receivables where we had (at the reclassification date) a clear change of intent and ability to hold the assets for the foreseeable future rather than to exit or trade in the short term. In these instances, we believed the intrinsic values of the assets exceeded their estimated fair values (which had been significantly adversely impacted by the reduced liquidity in the financial markets) and returns on these assets would be optimised by holding them for the foreseeable future, aligning more closely the accounting with the business intent. The reclassifications were made at the fair value of the assets at the reclassification date. No such reclassifications have been made since then.

Leveraged Finance (pg. 16) typically identifies the provision of debt – in the form of bank loans and/or high yield bonds – to fund the acquisition of a company or business division by a third party investor (e.g. a private equity fund) or by the existing management team (i.e. management buy-out). Leveraged finance transactions also include the raising of additional debt to fund special dividends to be paid to a company's existing shareholders. Leveraged finance is inherently riskier and therefore more expensive for borrowers than traditional lending as the amount of debt carried by a leveraged company is a significant multiple of its operating earnings and cashflow.

Commercial Real Estate (CRE) (pg. 16) provides financing to public corporations, private equity groups and individuals owning or acquiring commercial real estate assets in all property types including hotel & lodging, industrial, multifamily, office and retail globally. This includes loans to developers of real estate property.

Carrying Value (CV) (pg. 16) is the value of an asset as recorded in the balance sheet. For assets, the value is based on the original cost of the asset less any depreciation, amortisation or impairment costs charged against the asset.

Fair Value (FV) (pg. 16) is defined essentially as the price at which one can exit or sell a position in an orderly transaction under current market conditions.

Our *Homogeneous European Mortgage Portfolio (pg. 17)* consists of credit facilities that we have given predominantly to retail or small business clients as part of our business operations in Europe. The term "homogeneous" alludes to the fact that the portfolio consists of many individual facilities sharing common risk characteristics without substantial concentrations on only a few clients.

With the consolidation of Deutsche Postbank AG (Postbank), Deutsche Bank AG (DB) was required to perform a *Purchase Price Allocation (PPA) (pg. 19)* according to IFRS 3, thereby taking all assets acquired & liabilities assumed at fair value on its balance sheet. Where this PPA approach results in differences between Postbank's stand-alone and DB's Group values, all figures are flagged as either *Postbank view (pg. 18)* or *Deutsche Bank view (pg. 19)*, respectively. For Deutsche Bank Group accounting and regulatory purposes only Deutsche Bank view is relevant.